

REMARKS

This Amendment is fully responsive to the non-final Office Action dated April 28, 2009, issued in connection with the above-identified application. Claims 1-14 were previously pending in the present application. With this Amendment, claims 3-6 and 8-14 have been amended; and claims 1, 2 and 7 have been canceled without prejudice or disclaimer to the subject matter therein. No new matter has been introduced by the amendments made to the claims. Favorable reconsideration is respectfully requested.

To facilitate the Examiner's reconsideration of the present application, the Applicants have provided amendments to the specification and the abstract. The changes to the specification and the abstract include minor editorial and clarifying changes. Replacement paragraphs and a replacement abstract are enclosed. No new matter has been introduced by the amendments made to the specification and the abstract.

In the Office Action, claims 1 and 5 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa et al. (U.S. Patent No. 6,879,079, hereafter "Kanazawa") in view of Ineson et al. (U.S. Patent No. 5,334,897, hereafter "Ineson"). Claim 1 has been canceled thereby rendering the above rejection to that claim moot. Additionally, as amended, claim 5 now depends from independent claim 3, which includes features not believed to be disclosed or suggested by the cited prior art.

Independent claim 3 (as amended) recites the following features:

"[a]n enclosed motor, comprising:

a metallic motor casing having a peripheral wall portion formed in a cylindrical shape and an end wall portion for closing one end opening of the peripheral wall portion;

a rotor provided in said metallic motor casing to drive an output shaft projecting from said metallic motor casing through a shaft hole in the end wall portion;

a stator provided at a periphery of said rotor in said metallic motor casing to rotationally drive said rotor;

a cover member provided to close a other end opening of said metallic motor casing; and

a connector body integrally formed of a resin so as to close the other end opening of said

metallic motor casing from outside of said cover member,

wherein said cover member is formed integrally with said stator using a resin for integrally forming said stator, and is formed so as to integrally hold a connector pin, a portion on a distal end side of which is arranged in said connector body when said connector body is molded, and a proximal end portion of said connector pin serving as a terminal for connecting an end portion of a coil in said stator, and the terminal is located on an outside in an axial direction of a bobbin on which said coil in said stator is wound, and is provided so as to extend on the outer periphery side of the bobbin along an end surface in the axial direction of the bobbin." (Emphasis added).

The present invention (as recited in independent claim 3) is distinguishable over the cited prior art in that a terminal is located on the outside in the axial direction of a bobbin on which the coil in the stator is wound, and is provided so as to extend on the outer periphery side of the bobbin along the end surface in the axial direction of the bobbin.

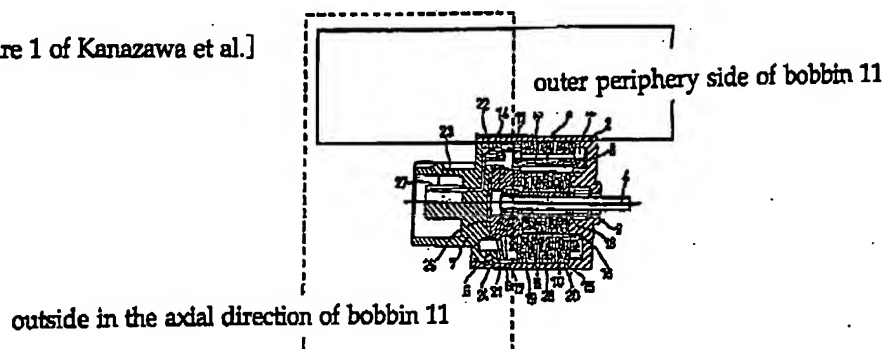
In the Office Action, the Examiner relies on Kanazawa in view of Ineson, and further in view of Bosman (U.S. Patent No. 5,254,892, hereafter "Bosman") for disclosing or suggesting all the features recited in claim 3 (now rewritten in independent form). However, the Examiner relies primarily on Kanazawa for disclosing or suggesting all the features of the claimed "terminal" noted above.

In particular, the Examiner states that "Kanazawa further discloses terminal 14 (Fig. 1, col. 2, lines 57-59, the axial direction of bobbin 11 is along the axis of the rotor 5) on which coil 13 in stator 3 is wound (Fig. 1, col. 2, lines 56-57) and is provided so as to extend on the outer periphery side of bobbin 11 (Fig. 1, where the inner periphery of bobbin 11 is where the stator core 10 is located) along the end surface (Fig. 1, the outer periphery surface of bobbin 11) in the axial direction of bobbin 11 (Fig. 1, col. 2, lines 57-59)."

However, the Applicants respectfully disagree with the Examiner's interpretation of the position of the bobbin 11 in Kanazawa. The terminal 14 in Kanazawa is located at the outer portion in the axial direction of the bobbin 11. Additionally, the terminal 14 is clearly not

extended on the outer periphery side of bobbin 11, as in the present invention. This is more clearly illustrated with reference to Fig. 1 of Kanazawa noted below.

[Figure 1 of Kanazawa et al.]



Finally, the description at col. 2, lines 56-59 of Kanazawa does not disclose or suggest that the terminal 14 is extended on the outer periphery side of the bobbin 11.

Accordingly, the features emphasized above in independent claim 3 are clearly distinguished from Kanazawa. Additionally, neither Ineson nor Bosman overcome the deficiencies noted above in Kanazawa. Accordingly, no combination of Kanazawa, Ineson and Bosman would result in, or otherwise render obvious, claim 3 from which claim 5 now depends. Thus, claim 5 is distinguished over the cited prior art at least by virtue of its dependency from independent claim 3.

Moreover, claim 5 is also believed to be distinguishable over the cited prior art on its own merit. Claim 5 recites the following features:

“said connector body is configured so that a surface directed toward the end wall portion side in the axial direction of said metallic motor casing serves as a flange surface for being installed to a member to which the motor is installed by being brought into contact with the member to which the motor is installed.”

The Examiner appears to rely primarily on Ineson for disclosing or suggesting the features of claim 5.

However, in Ineson, a member to which the motor is installed is the ring 19f which is one of the elements that constitute the motor structure. On the other hand, “the member to which the motor is installed” of claim 5 would be some member in Fig. 2 of Ineson (not shown) fitted to the left-side of the flange 42. Thus, the connector body 66 in Ineson is not connected with the

"member to which the motor is installed," and it is not a flange surface for installation to the "member," as in claim 5. Accordingly, claim 5 is distinguished over the cited prior art on its own merit.

In the Office Action, claims 2-4 and 6 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa, Ineson, and further in view of Bosman. Claim 2 has been canceled thereby rendering the above rejection to that claim moot. Additionally, claims 3 and 4 have been rewritten in independent form to include the features of claims 1 and 2 (now canceled).

With regard to claim 3, as noted above, the claim *inter alia* recites that "the terminal is located on an outside in an axial direction of a bobbin on which said coil in said stator is wound, and is provided so as to extend on the outer periphery side of the bobbin along an end surface in the axial direction of the bobbin." And, in the Office Action, the Examiner relies primarily on Kanazawa for disclosing or suggesting the features of the claimed "terminal" noted above.

However, the terminal 14 in Kanazawa is located at the outer portion in the axial direction of the bobbin 11. Additionally, the terminal 14 disclosed in Kanazawa is not extended on the outer periphery side of bobbin 11; and nowhere does Kanazawa disclose or suggest that the terminal 14 is extended on the outer periphery side of the bobbin 11, as recited in claim 3.

Ineson and Bosman fail to overcome the deficiencies noted above in Kanazawa. Accordingly, no combination of Kanazawa, Ineson and Bosman would result in, or otherwise render obvious, claim 3. Additionally, claim 6 (as amended) depends from claim 3. Therefore, no combination of Kanazawa, Ineson and Bosman would result in, or otherwise render obvious, claim 6 at least by virtue of its dependency from claim 3.

With regard to claim 4, the claim recites (as amended) the following features:

 "[a]n enclosed motor, comprising:

 a metallic motor casing having a peripheral wall portion formed in a cylindrical shape and an end wall portion for closing one end opening of the peripheral wall portion;

 a rotor provided in said metallic motor casing to drive an output shaft projecting from said metallic motor casing through a shaft hole in the end wall portion;

 a stator provided at a periphery of said rotor in said metallic motor casing to rotationally

drive said rotor;

a cover member provided to close a other end opening of said metallic motor casing; and
a connector body integrally formed of a resin so as to close the other end opening of said metallic motor casing from outside of said cover member,

wherein said cover member is formed integrally with said stator using a resin for integrally forming said stator, and is formed so as to integrally hold a connector pin, a portion on a distal end side of which is arranged in said connector body when said connector body is molded, and a proximal end portion of said connector pin serving as a terminal for connecting an end portion of a coil in said stator, and a sub-cover member, which enables the exposure of the terminal to said connector body, is provided in a portion corresponding to the terminal for connecting the end portion of the coil in said stator in said cover member.” (Emphasis added).

In the Office Action, the Examiner relies primarily on Ineson for disclosing the features of the claimed “sub-cover member” in claim 4. Specifically, the Examiner relies on element 60 disclosed in Ineson.

However, Ineson states that “[t]o close gaps between walls defining these slots and the electrical terminals themselves, a terminal barrier 60 is attached to the end cover 16 and to portions of the electrical terminals which pass through the slots. The terminal barrier, which is molded from a single piece of insulating material, includes a flat plate-shaped portion 62 from which extends two apertured plugs 64a, 64b.”

However, Ineson does not describe the terminal barrier 60 as being provided to enable the exposure of the terminal to a connector body, in a portion corresponding to the terminal for connecting the end portion of a coil in a stator in a cover member, as in claim 4. Additionally, Kanazawa and Bosman fail to overcome the deficiencies noted above in Ineson. Accordingly, no combination of Kanazawa, Ineson and Bosman would result in, or otherwise render obvious, claim 4.

In the Office Action, claims 7-12 have rejected under 35 U.S.C. 103(a) as being unpatentable over Bosman in view of Chol (U.S. Patent No. 7,406,747, hereafter “Chol”).

Claim 7 has been canceled thereby rendering the above rejection to that claim moot. Additionally, claim 8 has been rewritten in independent form to include the features of claim 7 (now canceled). The Applicants assert that the cited prior art fails to disclose or suggest all the features now recited in claim 8 (as amended).

Claim 8 (as amended) recites the following features:

“[a] motor comprising a rotor in which a rotor magnet is fixed on an outer peripheral surface of a support shaft portion, and the support shaft portion is formed of a material having a self-lubricating property, and the outer peripheral surface of said support shaft portion is supported rotatably,

wherein an end surface in the axial direction of the support shaft portion is supported slidably.” (Emphasis added).

Claim 8 (as amended) defines that the end surface in the axial direction of the support shaft portion is supported slidably. In the Office Action, the Examiner states that Bosman disclose that an end surface in the axial direction (left edge of end portion 52 in Figs. 3 and 6b) of the support shaft portion (Figs. 6a-6b, support shaft portion made up of barrier member 56 and hub 62,.....) is supported slidably (Figs. 2, 3 and 4).

However, in Bosman, the support shaft portion (that is, the protruding cylindrical end portion 52), which is circumferentially slidably supported by the stator opening 48, does not slidably support the end surface in the axial direction. Additionally, Chol fails to overcome the deficiencies noted above in Bosman. Accordingly, no combination of Bosman and Chol would result in, or otherwise render obvious, claim 8. Likewise, no combination of Bosman and Chol would result in, or otherwise render obvious, claims 9-12 at least by virtue of their dependencies from claim 8.

In the Office Action, claims 13 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bosman and Chol, and further in view of Torimoto et al. (U.S. Patent No. 4,723,754, hereafter “Torimoto”). Claims 13 and 14 depend from independent claim 8. As noted above, Bosman in view of Chol fails to disclose or suggest all the features recited in independent claim 8. Moreover, Torimoto fails to overcome the deficiencies noted above in

Bosman and Chol. Accordingly, no combination of over Bosman, Chol, and Torimoto would result in, or otherwise render obvious, claims 13 and 14 at least by virtue of their dependencies from independent claim 8.

Moreover, at least claim 14 is also believed to be distinguishable over the cited prior art on its own merit. Claim 14 recites “a disc-shaped member is disposed between an axial end surface of the support shaft portion and the thrust bearing surface.”

In the Office Action, the Examiner alleges that Bosman discloses a disc-shaped member between an axial end surface of the support shaft portion and the thrust bearing surface, as recited in claim 14. Specifically, the Examiner relies on Fig. 3 and Figs. 6a-6b of Bosman.

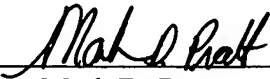
However, it is submitted that there is no clear description in Bosman regarding a disc-shaped member disposed between the axial end surface of the support shaft portion and the thrust bearing surface. It seems that, at best, an "element" illustrated in the Figs. 3 and 6a-6b of Bosman is more accurately a clearance or a space formed between the end surface of the supporting member 52 and the axial bottom surface of the stator opening 48, and is not an actual element on the motor. Accordingly, claim 14 is also believed to be distinguished over the cited prior art on its own merit.

In light of the above, the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue.

The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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